

whereby a seam is defined by the upper rim of the susceptor side
15 wall and the outer surface of the crucible side wall;

a heater in thermal communication with the susceptor and
crucible for heating the crucible to a temperature sufficient to
melt the source material held by the crucible;

a pulling mechanism positioned above the crucible for
20 pulling the ingot from the molten source material held by the
crucible; and

A1, 100%
an annular sealing member adapted for seating on the upper
rim of the susceptor side wall in close contact relationship with
the upper rim of the susceptor side wall and the outer surface of
25 the crucible side wall substantially about the entire
circumference of the crucible side wall to seat over said seam to
generally seal between the crucible and the susceptor any gaseous
product resulting from a reaction of the crucible with the
susceptor against escape from between the crucible and the
30 susceptor thereby retarding the reaction of the crucible with the
susceptor.

A1 [Please cancel [✓]claims 2-4 without prejudice to their
patentability.]

A2
9 (amended). A susceptor assembly in combination with a
crucible for use in a crystal puller of the type used for growing
a monocrystalline ingot from molten source material contained in
the crucible in the crystal puller, the susceptor assembly
5 comprising:

a susceptor including a bottom and a side wall having an
inner surface and an upper rim, the susceptor being sized for
receiving and holding the crucible in the crystal puller, the

inner surface of the side wall of the susceptor being in
10 generally radially opposed relationship with an outer surface of
a side wall of the crucible and being free of shielding, the
susceptor being sized such that the crucible side wall extends up
to above the upper rim of the susceptor side wall whereby a seam
is defined by the upper rim of the susceptor side wall and the
15 outer surface of the crucible side wall; and

Amend
an annular sealing member adapted for seating on the upper
rim of the susceptor side wall in close contact relationship with
the upper rim of the susceptor side wall and the outer surface of
the crucible side wall substantially about the entire
20 circumference of the crucible side wall to seat over said seam to
generally seal between the crucible and the susceptor any gaseous
product resulting from a reaction of the crucible with the
susceptor against escape from between the crucible and the
susceptor thereby retarding the reaction of the crucible with the
25 susceptor.

Please cancel claims 10-12 without prejudice to their
patentability.

13 (amended). A susceptor assembly as set forth in claim 9
wherein the annular sealing member is constructed of graphite.

A3
14 (amended). A susceptor assembly as set forth in claim 13
wherein the annular sealing member is constructed of isomolded
graphite.

15 (amended). A susceptor assembly as set forth in claim 9
wherein the susceptor is constructed of at least two pieces, the

susceptor pieces generally abutting one another other along a seam comprising a generally vertically extending segment within in the side wall of the susceptor.

16 (amended). A susceptor assembly as set forth in claim 15 wherein the vertically extending segment of the seam between abutting susceptor pieces is directed generally non-radially through the side wall of the susceptor such that the susceptor pieces radially overlap each other along the seam to further inhibit gaseous product against escaping from between the susceptor and the crucible.

17 (amended). A method for growing monocrystalline ingots from molten source material in a crystal puller of the type having a crucible adapted for holding source material and a heater adapted for heating the crucible to melt the source material in the crucible, the method comprising the steps of:

seating the crucible in a susceptor mounted in the crystal puller, the susceptor including a bottom and a side wall having an inner surface in generally radially opposed relationship with a side wall of the crucible and the inner surface of the susceptor side wall being free of shielding, the susceptor being sized such that the crucible side wall extends up within the crystal puller to above the upper rim of the susceptor side wall whereby the seam is defined by the upper rim of the susceptor side wall and an outer surface of the crucible side wall;

charging semiconductor source material to the crucible;
heating the susceptor and crucible to a temperature sufficient to melt the semiconductor source material held by the

crucible, said heating causing the crucible to react with the
susceptor therebetween to produce a gaseous product; and

20 generally sealing said gaseous product between the susceptor
and crucible by seating a sealing member on the upper rim of the
susceptor side wall in close contact relationship with the upper
rim of the susceptor side wall and the outer surface of the
crucible side wall substantially about the entire circumference
25 of the crucible side wall so that the sealing member seats over
said seam to increase the concentration of said gaseous product
between the susceptor and crucible, thereby inhibiting further
reaction of the crucible with the susceptor.

Please cancel ~~claims~~ 18-19 without prejudice to their
patentability.